



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:
Hassan Jomaa

Serial No.: 09/806,080

Filed: June 1, 2001

For: GENES OF THE 1-DEOXY D-XYLULOSE
BIOSYNTHESIS PATHWAY

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Group Art Unit: 1614

Examiner: Unknown

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Assistant Commissioner for Patents
Attn: Office of Initial Patent Examination
Customer Service Center
Washington, D.C. 20231

REQUEST FOR CORRECTED FILING RECEIPT

Dear Sir:

Attached is a copy of the official filing receipt received from the U.S. Patent and Trademark Office in the above-identified patent application in which issuance of a corrected filing receipt is respectfully requested.

There is an error in the title of the invention in that the title "GENES OF THE 1-DESOXY-D-XYLULOSE BIOSYNTHESIS PATHWAY" should read "GENES OF THE 1-DEOXY-D-XYLULOSE BIOSYNTHESIS PATHWAY." Correction of this error is respectfully requested. Attached is a copy of the title page of the application as originally filed.

The error is not due to any error by applicant and, therefore, no fee is due.

Respectfully submitted,

Warren B. Kice
Registration No. 22,732

Dated: 7/19/01
HAYNES AND BOONE, LLP
901 Main Street, Suite 3100
Dallas, Texas 75202-3789
Telephone: 214/651-5634
Telecopy: 214/651-5940
File: 12964.23
d-917902.1

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner For Patents, Office of Initial Patent Examination's Customer Service Center, Washington, D.C. 20231

on

July 19 2001

Audra Bennett

SEP 06 2001



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APPLICATION NUMBER	FILING DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO.	DRAWINGS	TOT CLAIMS	IND CLAIMS
09/806,080	06/01/2001	1614	2020	12964.23		30	8

CONFIRMATION NO. 3364

 Warren B Kice
 Haynes & Boone
 Suite 3100
 901 Main Street
 Dallas, TX 75202-3789

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JUN 25 2001

HAYNES & BOONE L.L.P.

FILING RECEIPT



OC000000006200636

Date Mailed: 06/19/2001

Receipt is acknowledged of this nonprovisional Patent Application. It will be considered in its order and you will be notified as to the results of the examination. Be sure to provide the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION when inquiring about this application. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please write to the Office of Initial Patent Examination's Customer Service Center. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections (if appropriate).

Applicant(s)

Hassan Jomaa, Gieben, GERMANY;

Domestic Priority data as claimed by applicant

THIS APPLICATION IS A 371 OF PCT/EP99/07055 09/22/1999

Foreign Applications

 GERMANY 19843279.8 09/22/1998
 GERMANY 19923567.8 05/22/1999

Projected Publication Date: N/A

Non-Publication Request: No

Early Publication Request: No

Title

Genes of the 1-deoxy-d-xylulose biosynthesis pathway

Preliminary Class

514

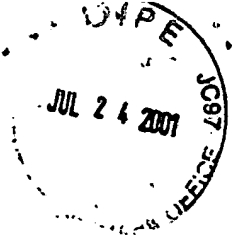
CODE	DATE	ACTION
RFF	8.29.01	AWAITING REFUND
IDS	9.1.01	PREPARE IDS

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Genes of the 1-deoxy-D-xylulose biosynthesis pathway

5 The present invention relates to DNA sequences which, when incorporated into the genome of viruses, eukaryotes and prokaryotes, modify isoprenoid biosynthesis and to a genetic engineering process for the production of these transgenic viruses, eukaryotes and prokaryotes. The invention also relates to a process for the identification of substances having herbicidal, antimicrobial, antiparasitic, antiviral, fungicidal, bactericidal action in plants and antimicrobial, antiparasitic, antimycotic, antibacterial and antiviral action in humans and animals.

15 The biosynthesis pathway for the formation of isoprenoids via the classical acetate/mevalonate pathway and an alternative mevalonate-independent biosynthesis pathway, the deoxy-D-xylulose phosphate pathway is already known (Rohmer, M., Knani, M., Simonin, P., Sutter, B. and Sahn, H. (1993): *Biochem. J.* 295: 517-524).

25 It is, however, not known how and by which pathways it is possible to bring about a change in the isoprenoid concentration in viruses, eukaryotes and prokaryotes by means of the deoxy-D-xylulose phosphate pathway. Figure 1 shows this biosynthesis pathway.

30 DNA sequences are consequently provided which code for 1-deoxy-D-xylulase 5-phosphate synthase (DOXP synthase), 1-deoxy-D-xylulose 5-phosphate reductoisomerase (DOXP reductoisomerase) or the gcpE protein. All three genes and enzymes are involved in isoprenoid biosynthesis.